PENDING CLAIMS

1-10 (Cancelled)

11. (Previously Presented) A process for the production of a valve metal oxide powder which comprises continuous reacting a fluoride-containing valve metal compound with a base in the presence of water at a temperature of at least 45°C and calcination of the resultant product, wherein the fluoride-containing valve metal compound is employed as an aqueous solution at a concentration of 0.3 mol/l to 1.2 mol/l, based on the amount of valve metal, wherein the base is an aqueous ammonia solution with a concentration of 3 weight percent to 15 weight percent and the reaction is carried out continuously, wherein the volumetric flow ratios are adjusted such that the ratio of the volumetric flow rate of an aqueous solution of the fluoride-containing valve metal compound to the volumetric flow rate of the aqueous solution of the base is from 1:0.9 to 1:2, and wherein the molar concentration ratio of fluoride-containing valve metal compound, calculated as valve metal, to base is adjusted to from 1: 5.6 to 1: 8.5 and the, reaction is performed in a single reaction vessel.

12. (Previously Presented) The process according to claim 11, wherein the residence time in the reaction vessel is between 30 minutes and 3 hours.

13. (Previously Presented) The process according to claim 11, wherein the fluoride-containing valve metal compound and the base used are in each case used in the form of an aqueous solution or suspension.

14. (Previously Presented) The process according to claim 11, wherein the fluoride-containing valve metal compound is H_2NbF_7 or H_2TaF_7.

15. (Previously Presented) The process according to claim 11, wherein the reaction of the fluoride-containing valve metal compound with the base is performed at a pH value, measured at reaction temperature, of 7 to 14.

16. (Previously Presented) A spherical valve metal oxide powder with an average particle diameter D_{50}, determined by MasterSizer to ASTM B 822, of 10 to 80 μm, characterized in that the BET surface area, determined by the N_2 3-point method according to ASTM D 3663, is at least 10 m^2/g.

17. (Previously Presented) The valve metal oxide powder according to claim 16, wherein the valve metal oxide is a niobium or tantalum oxide.

18. (Previously Presented) The valve metal oxide powder according to claim 17, wherein the valve metal oxide is Nb_2O_5 or Ta_2O_5.

19. (Previously Presented) The valve metal oxide powder according to claim 16, wherein the BET surface area determined by the N_2 3-point method according to ASTM D 3663, is at least 15 m^2/g.

20. (Previously Presented) The valve metal oxide powder according to claim 16, wherein the BET surface area determined by the N_2 3-point method according to ASTM D 3663, is at least 20 m^2/g.

21. (Previously Presented) The valve metal oxide powder according to claim 16, wherein the BET surface area determined by the N_2 3-point method according to ASTM D 3663, is at least 40 m^2/g.

22. (Previously Presented) The valve metal oxide powder according to claim 16, wherein the BET surface area determined by the N_2 3-point method according to ASTM D 3663, is at least 60 m^2/g.

23. (Previously Presented) The valve metal oxide powder according to claim 16, wherein when applying said powder onto a square slide with an adhesive surface, an area is measured in which at least 200 particles are visible, and the powder particles visible in this image are evaluated by

laying a circle around an imaged powder particle, the circle touching the two maximally distant points on the circumference of the particle, a further circle with an identical center point is drawn, but now touching the two minimally distant points on the circumference of the particle, the ratio of the diameter of these two circles is used as a criterion for describing the morphology of the valve metal oxide powder wherein at least 95% of the powder particles exhibit a ratio of the diameter of the larger circle to the diameter of the smaller circle of 1.0 to 1.4.

24. (Previously Presented) A process for the production of valve metal powders or valve metal suboxide powders which comprises converting the valve metal oxide powder according to claim 16 to a valve metal powder or valve metal suboxide powder by reduction.

25. (Previously Presented) The valve metal oxide powder according to claim 23, wherein the BET surface area determined by the N_2 3-point method according to ASTM D 3663, is at least 60 m^2/g.

26. (Previously Presented) The valve metal oxide powder according to claim 18, wherein the BET surface area determined by the N_2 3-point method according to ASTM D 3663, is at least 60 m^2/g.